MATERIAL SAFETY DATA SHEET

Date October 7, 1997

1. **PRODUCT AND COMPANY IDENTIFICATION**

Trade Name: **SU-80 Seam Sealer**
Chemical Name: Mixture
Synonyms: Not applicable
Chemical Family: Solution of Poly (vinyl chloride) Copolymer
Formula: Mixture, see below.

COMPANY ADDRESS:

Congoleum Corporation
211 University Office Plaza II
3705 Quakerbridge Road
Mercerville, NJ 08619

EMERGENCY CONTACT: **CALL CHEM TEL AT 1-800-255-3924**
TRANSPORTATION EMERGENCY: **CALL CHEM TEL AT 1-800-255-3924**

2. **COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS Number	% By Weight	OSHA PEL ppm	OSHA PEL mg/m³	ACGIH TLV-TWA ppm	ACGIH TLV-TWA mg/m³
Methyl ethyl ketone	78-93-3	30-35	200	590	200	590
Toluene	108-88-3	30-35	200		50*	188*
Tetrahydrofuran	109-99-9	15-20	200	590	200	590
PVC/PVA copolymer	9003-22-9	Balance	NE	NE	NE	NE
Butyl benzyl phthalate	85-68-7	<5	NE	NE	NE	NE

NE = Not Established

*Toluene carries the "SKIN" designation, indicating that it can be absorbed and toxic via skin exposure.

Additional Exposure Standards The following additional exposure standards may apply

Tetrahydrofuran	ACGIH STEL	250 ppm (737 mg/m³)
Toluene	OSHA CEILING	300 ppm
	OSHA	500 ppm (10-min peak)
Methyl ethyl ketone.	ACGIH STEL	300 ppm (885 mg/m³)

3. **HAZARDS IDENTIFICATION**

DANGER! EXTREMELY FLAMMABLE. HARMFUL OR FATAL IF SWALLOWED. KEEP OUT OF REACH OF CHILDREN. Keep away from heat, sparks and open flame. Do Not Smoke Extinguish all flames, pilot lights and other sources of ignition during use and until all vapors are gone. Use in well ventilated area Vapors are heavier than air and collect in low areas. Vapors are harmful. Avoid breathing vapors Eye and skin irritant Protect skin and eyes from exposure to liquid.

WARNING: Do not sand, dry sweep drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt or asphaltic "cut back" adhesives These products may contain either asbestos fibers or crystalline silica Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content

IDENTIFICATION (CONT'D)

HAZARD RATINGS	Degree of hazard (0 = low, 4 = extreme)			
National Fire Protection Association	Health: 2	Flammability: 3	Reactivity: 1	Specific Hazard: None
Hazardous Materials Identification System	Health 2	Flammability 3	Reactivity: 1	

4. FIRST AID MEASURES

EYE CONTACT.	Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a physician immediately
SKIN CONTACT.	Immediately flush with water for 15 minutes. Wash the contaminated skin with soap and water. If clothing becomes contaminated, launder before reuse. If irritation or pain develops, get medical attention.
INHALATION:	If a person experiences nausea, headache, or dizziness, person should stop work immediately and move to fresh air until those symptoms disappear. If breathing is difficult, administer oxygen, keep the person warm and at rest, and call a physician In the event that an individual inhales enough vapor to lose consciousness, that person should be moved to fresh air at once and a physician should be called immediately. If breathing has stopped, artificial respiration should be given immediately. In all cases, ensure adequate ventilation and provide respiratory protection before the person returns to work.
SWALLOWING	DO NOT induce vomiting. Call a physician at once; in the interim contact a poison control center. Administer water or milk, but DO NOT give anything by mouth if the person is unconscious or is having convulsions

5. FIRE FIGHTING MEASURES

Flash Point 15 °F — Test Method: Tag closed cup
Lower Explosive Limit: 1 — Upper Explosive Limit: 7
Autoignition Temp No data

EXTINGUISHING MEDIA	Dry chemical or alcohol-type foam Waterspray may be ineffective.
SPECIAL FIRE FIGHTING PROCEDURES	Use waterspray to cool fire-exposed surfaces, containers, and to protect personnel Respiratory protection required for fire fighting personnel. Stay upwind if possible Cool exposed tanks with water.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	HCl, CO_x, and toxic peroxides could be released in fire.

6. STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Keep public away. Shut off source of spill if possible to do so without hazard. Eliminate sources of ignition In case of substantial spilled quantity, warn occupants of downwind areas of explosion hazard. Prevent liquid from entering sewers, watercourses, or low areas

7. HANDLING/STORAGE Keep container closed when not in use. Do not handle or store near flame, heat or strong oxidants Adequate ventilation required.

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8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

EYE PROTECTION. Protect eyes from exposure to liquid or high concentrations of vapor Use chemical splash goggles Have eye wash equipment nearby.

SKIN PROTECTION: Protect skin from exposure. Wear chemical-resistant gloves (neoprene, nitrile, or rubber). Use good industrial hygiene practices (washing hands after use) to prevent skin irritation.

VENTILATION Use sufficient ventilation in volume and pattern to keep air concentration below PEL or TLV. Vapors are heavier than air and may accumulate at floor level and in low areas, so use extra ventilation (explosion-proof equipment) to prevent such accumulation Vapors will travel to a source of ignition such as sparks or open flame and flash back, so do not smoke or have other sources of ignition in the vicinity.

RESPIRATORY PROTECTION: If PEL or TLV is exceeded, for example during use in a confined area, use a NIOSH/MSHA approved respirator with an organic vapor cartridge. At high concentrations use a respirator with full face protection. At unknown concentrations and for fire fighting, use self-contained breathing apparatus (SCBA). Always use respirators in accordance with instructions

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9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 102-230 °F Vapor Density: Heavier than air
Density: 7.6 lbs/gallon Evaporation Rate: No data found
Vapor Pressure (mm Hg): Approx. 100 @ 25 °C
% Volatile by Volume: 76% Solubility in Water (20 °C): Appreciable
Melting Point: NA Viscosity: Brookfield-#2 spindle = 150 cps
Appearance: Clear to slightly hazy colorless liquid

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10. STABILITY/REACTIVITY Stability: Stable under normal storage conditions

CONDITIONS TO AVOID: Keep away from heat, sparks, flame or other sources of ignition.

INCOMPATIBLE MATERIALS. Strong oxidants, caustics, amines, alkanolamines, aldehydes, ammonia, peroxides, hydrides, and acids Will dissolve some plastics and coatings, and chlorinated compounds

HAZARDOUS DECOMPOSITION PRODUCTS. HCl, CO_x, and toxic peroxides can be formed in fire

POLYMERIZATION. Hazardous polymerization not expected.

11. TOXICOLOGICAL INFORMATION

No toxicologic data were found for this mixture of chemicals. The effects reported are those anticipated based on the components of this product.

POTENTIAL ROUTES OF EXPOSURE.

Skin and inhalation exposure are the most likely routes of exposure to this product. Do not swallow this product!

SIGNS, SYMPTOMS, AND TOXIC EFFECTS OF OVEREXPOSURE:

Exposure to excess vapor concentrations of this product will cause irritation of the respiratory tract with cough, difficulty breathing, dryness of the throat, etc. Exposure to high vapor concentrations may cause central nervous system depression, nausea, headache, dizziness, hilarity, fainting, or confusion. Extreme exposures could result in tachycardia, coma, or death. Direct eye or skin exposure to this product will cause irritation with stinging and watering of eyes and dry, red skin. Ingestion results in pain or burning of the gastrointestinal tract and possibly vomiting. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Prolonged overexposure to this product may also cause liver or kidney damage, menstrual disturbances, or neuropathy characterized by numbness and tingling in extremities.

ANIMAL TOXICITY DATA:

Component	Inhalation LC_{50}	Dermal LD_{50}, mg/kg	Oral LD_{50}, mg/kg
Toluene	mouse, 5,320 ppm/8H	rabbit, 12,124	rat, 5,000
Tetrahydrofuran	rat, 21,000 ppm/3H	No data found	rat, 1,650
Methyl ethyl ketone	rat, 23,500 mg/m3/8H	rabbit, 8,480	rat, 2,737
PVC/PVA Copolymer	No data found.	No data found	No data found.
Butyl benzyl phthalate	No data found.	rabbit, >10,000	rat, 2,330

REPRODUCTIVE EFFECTS.

There are no data from humans exposed to this product to indicate reproductive effects. The following data are from animal experiments and may not predict for human effects. Tetrahydrofuran: Animal experiments indicate possible embryotoxic effects in embryos exposed via maternal exposure during pregnancy. Methyl ethyl ketone: Exposure of pregnant rats to high vapor levels has resulted in teratogenic effects. Toluene: Fetotoxic and teratogenic effects have been reported in mice exposed to vapor levels of toluene above the TLV while pregnant. Male rats exposed to high levels of toluene via inhalation showed effects on testes and sperm. Butyl benzyl phthalate: At the high dose in a rat feeding study (approximately 2.5 percent of the diet) a decrease in the weight of the testes was noted. One study in rats reports unspecified changes in sperm at a high dose. No data were found for PVC/PVA Copolymer.

MUTAGENICITY DATA.

This product has not been tested for mutagenicity. Tetrahydrofuran, butyl benzyl phthalate, methyl ethyl ketone, and toluene are generally negative in mutagenicity tests. No data were found for PVC/PVA Copolymer.

DESIGNATION AS POTENTIAL CARCINOGEN.

EPA designates butyl benzyl phthalate as Group C, a "possible human carcinogen." IARC designates PVC, PVA, and butyl benzyl phthalate as Group 3, "not classifiable as to its carcinogenicity in humans."

11. TOXICOLOGICAL INFORMATION (CONT'D)

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE	Existing skin, kidney, liver, lung, nervous system, or eye disorders may be aggravated by exposure to this product.
INTERACTIONS WITH CHEMICALS THAT ENHANCE TOXICITY:	Methyl ethyl ketone enhances the neurotoxicity of n-hexane and methyl n-butyl ketone. Toluene can interact with benzene, chlorinated hydrocarbons, aspirin, and alcohol to interfere with the metabolism of these compounds and thus aggravate their toxic effects.

12. ECOLOGICAL INFORMATION

Components of this product are toxic to aquatic life. Do not dump into waterways.

13. DISPOSAL CONSIDERATIONS

Disposal should conform to federal (40 CFR part 261), state, and local regulations. Before attempting cleanup, refer to hazard information and personal protection information in other sections of this MSDS. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

14. TRANSPORTATION INFORMATION

U.S.D.O.T. PROPER SHIPPING NAME (HM215 Part 172.101)*:	Consumer Commodity ORM-D** *Applicable also to Canada via rail and truck.
U.S.D.O.T. ID NO.:	Not Applicable
U.S.D.O.T. Label Required:	None
U.S.D.O.T. HAZARD CLASS:	ORM-D
U.S.D.O.T. PACKING GROUP:	II

** Consumer Commodity ORM-D Requirements: The gross weight of each package must not exceed 30 kg (66 pounds) gross weight. For flammable liquids in packing Group II, inner packaging must not exceed 1.0 L (0.3 gallons) net capacity each, packed in strong outer packaging.

D.O.T. proper shipping name other than consumer commodity ORM-D exceptions, i.e. International (HM 215-A, Part 172.101) Flammable Liquids, N.O.S. (contains toluene and methyl ethyl ketone) 3, UN1993, LTD. Qty. PGII.

D.O.T. ID No.: UN1993
D.O.T. Label Required: Flammable Liquid
D.O.T. Hazard Class: Flammable Liquid 3
D.O.T. Packing Group II

15. TRANSPORTATION INFORMATION (CONT'D)

CAUTION: **SHIPMENTS VIA AIR ARE NOT PERMITTED** - Current packaging does not meet all the specific requirements for air shipments.

OTHER INFORMATION: US Surface Freight Classification - Seam Sealer Lacquer (NMFC Item 149980)

15. REGULATORY INFORMATION

SARA 313 LISTING: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS Number	Chemical Name	Weight %
108-88-3	Toluene	30-35
78-93-3	Methyl ethyl ketone	30-35

This information must be included in all MSDSs that are copied or distributed for this material

SARA 312 HAZARD CLASS: This product is an "immediate health & fire hazard" under 40 CFR 370.2.

SARA EXTREMELY HAZARDOUS SUBSTANCES: None of the components of this product are listed under 40 CFR 355.

EPA HAZARDOUS SUBSTANCES LIST: (40 CFR 302 4): Tetrahydrofuran (CAS # 109-99-9) 15-20%; RQ=1,000 lbs.
Butyl benzyl phthalate (CAS # 85-68-7) <5%; RQ=100 lbs.
Toluene (CAS # 108-88-3) 30-35%; RQ=1,000 lbs
Methyl ethyl ketone (CAS # 78-93-3) 30-35%. RQ=5,000 lbs.

CA PROPOSITION 65: WARNING! This product contains chemicals known to the state of California to cause developmental toxicity (30-35% toluene)

PENN. RIGHT-TO-KNOW: All required components are identified.

N.J. RIGHT-TO-KNOW: All required components are identified.

MASS. RIGHT-TO-KNOW: All required components are identified.

TSCA INVENTORY STATUS: All components of this product are listed on the TSCA Inventory.

CANADIAN WHMIS CLASS: B2, Flammable Liquid, D2B, Poisonous and infectious material.

16. OTHER INFORMATION

REVISIONS: Entire MSDS revised October 7, 1997.

PREPARED BY: Karch & Associates, Inc , using standard references and information provided and directed by Congoleum.